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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,373	12/27/2006	Sergey Evgenievich Mikhailov	MIKHAILOV EL AL-1 PCT	8392
25889	7590	07/15/2009	EXAMINER	
COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576			PURINTON, BROOKE J	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/590,373	<b>Applicant(s)</b> MIKHAILOV ET AL.	
	<b>Examiner</b> Brooke Purinton	<b>Art Unit</b> 2881	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 May 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 May 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/7/2009</u> . | 6) <input checked="" type="checkbox"/> Other: <u>translation of JP05088086</u> .        |

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Levin (USPN 4103175) in view of Maruyama (JP 05088086) and Basso (USPN 4674507).

**Regarding Claim 1**, Levin teaches a device for UV-irradiating of human's cutaneous covering (Col 1, lines 5-10), i.e., a vertical solarium comprising a cylinder-shaped body closed along the perimeter thereof accommodating 'n' fluorescent lamps for taking sunless tan (Figure 2, Col 2, line 23 "fluorescent lamps," where n would be the number of lamps Levin discloses, and perimeter being closed as shown in figure 6 and discussed by irradiation need to "receive radiant power through 2Pi steradians, i.e. from all directions within a hemispherical zone," Col 3, lines 46-50), said lamps being spaced apart at an equal angular pitch round an axis which is at the same time the solarium's axis, and being arranged parallel thereto (Figure 1, lamps 14 are parallel to each other).

Levin fails to teach the solarium being provided with a door, the solarium being used for tanning (he discloses it being used for medical purposes (1, 1-31)) and the lamps being placed equidistantly therewith (he discloses a gap for a viewing portal (4, 55-60)).

Basso teaches a tanning solarium with a cylinder shaped body provided with a door (Figure 1, part 12), the solarium being used for tanning (1, 5-6), and the lamps being placed equidistantly therewith (Figure 2, lamp sets 16, 17 being placed equidistantly).

It would have been obvious to one of ordinary skill at the time of the invention to have a door, because it is well known in the art that that would allow a user easy access to the irradiation area. It would have additionally been obvious to use the solarium for tanning, because that is a commonly known thing to use UV light for. Lastly, placing the lamps equidistantly ( i. e. without a viewing portal as disclosed in

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Levin) would have been obvious if the user needed a more even tan, or did not need supervision or to remain within visual contact. Furthermore, the use of more modern technology - including smaller and less expensive cameras - would allow a modern day inventor to modify the apparatus of Levin to have equidistant lamps and still be able to observe the patient undergoing treatment.

The combination of Levin and Basso fail to teach that said device further comprises a cylinder-shaped mirror reflector which is coaxial with the solarium body and is interposed between the lamps and said body and that the reflector is comprised of  $2n$  alternating areas (integrated into a cylinder) of first-type and second-type involute cylinder-shaped surfaces the evolutes of which are closed curves which limit the convex transverse sections of the lamp and conventional absorber, respectively, each area of the first-type surface is disposed immediately behind each lamp and appears as a portion of an involute cylinder-shaped surface generated by moving a straight line, which is parallel to the axis of solarium body, along involutes of a closed curve which limits the convex transverse section of the lamp, the involutes being used as guides, and each area of the second-type surface is disposed between the lamps and is a portion of an involute cylinder-shaped surface generated by moving a straight line, which is parallel to the axis of solarium body, along involutes of a closed curve which limits the transverse section of the conventional absorber.

Maruyama teaches a device comprises a cylinder-shaped mirror reflector interposed between the lamps and said body (Figure 7, part 35, 45, 55 are fluorescent lamps and 31, 41, 51 are involute form reflector plates) characterized in that the reflector is comprised of  $2n$  alternating areas of first-type and second-type involute cylinder-shaped surfaces the evolutes of which are closed curves which limit the convex transverse sections of the lamp and conventional absorber, respectively (Figure 7), each area of the first-type surface is disposed immediately behind each lamp and appears as a portion of an involute cylinder-shaped surface (Figure 7, first type surface being that behind lamps 35, 45, 55) generated by moving a straight line parallel, which is parallel to the axis of solarium body of a closed curve which limits the convex transverse section of the lamp, the involutes being used as guides, and each area of the second-type surface is disposed between the lamps and is a portion of an involute cylinder-shaped surface (Figure 7, area around 61, 62 being the second type surface) generated by moving a straight line, which is

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parallel to the axis of solarium body, along involutes of a closed curve which limits the transverse section of the conventional absorber.

It would have been obvious to one of ordinary skill in the art to use the reflector arrangement of Maruyama in the apparatus of Levin and Basso since Levin discloses that he tried putting reflectors in the apparatus but "the irradiance provided within the chamber has a strong component of multiply reflected radiant flux across the chamber. Consequently, the irradiance will be a function of the patients body size and location," (3-4, lines 65-3), basically, the flux incident on the patient is not uniform. Maruyama teaches that the arrangement of fluorescent lights being backed by the reflector shown is "an involute form reflector plate with which efficiency also improves sharply and homogeneous radiation is obtained," [0003] to combat problems of radiation efficiency/uniformity of previous reflector designs [0002]. To modify the apparatus of Levin and Basso by the reflector design of Maruyama and put the reflector plates between the lamps and the chamber wall would yield the predictable results of allowing a more uniform radiation to be incident on the patient/absorber as well as a more efficient use of light, and a consequent saving of energy because of the more efficient design.

### ***Response to Arguments***

Applicant's arguments filed 5/7/2009 have been fully considered but they are not persuasive.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to

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do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, both Levin and Basso are concerned with the amount of radiation directed to the object vs. the amount of radiation lost (Levin, reflectors on base and ceiling, Basso, polished aluminum reflector underneath the lamps). Murayama's shape is described as reflecting in a "homogenous manner without being blocked, efficiency is greatly improved, and furthermore, homogenous radiation is obtained," [0002] of the human translation, a copy of which is attached to this office action. Therefore, it would have been obvious to place the reflectors of Murayama behind the lamps of Levin and Basso in order to increase the reflecting radiation incident on the object of radiation, and to make sure that all areas received the same amount of radiation (homogenously), with the least amount of wasted radiation (efficiently).

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brooke Purinton whose telephone number is 571.270.5384. The examiner can normally be reached on Monday - Friday 7h30-5h00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on 571.272.2293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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